

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

Luminant Generation Company LLC
AUTHORIZING THE OPERATION OF
Permian Basin Steam Electric Station
Electric Services
LOCATED AT

Ward County, Texas

Latitude 31° 35' 2" Longitude 102° 57' 49"

Regulated Entity Number: RN102183969

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site, emission units and affected source listed in this permit. Operations of the site, emission units and affected source listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site, emission units and affected source authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site, emission units and affected source.

Permit No: O56 Issuance Date:

For the Commission

Table of Contents

Section	Page
General Terms and Conditions	1
Special Terms and Conditions	1
Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting	1
Additional Monitoring Requirements	11
New Source Review Authorization Requirements	12
Compliance Requirements.....	13
Protection of Stratospheric Ozone	13
Temporary Fuel Shortages (30 TAC § 112.15)	14
Alternative Requirements	14
Permit Location	14
Acid Rain Permit Requirements	15
Clean Air Interstate Rule Permit Requirements	19
Attachments	25
Applicable Requirements Summary	26
Additional Monitoring Requirements	34
New Source Review Authorization References.....	46
Alternative Requirement.....	50
Appendix A	61
Acronym List	62
Appendix B	63

General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit, except for reports required solely by the Acid Rain permit or the Clean Air Interstate Rule permit, must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
- D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
- E. Emission units subject to 40 CFR Part 63, Subpart ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.1090 which incorporates the 40 CFR Part 63 Subpart by reference.
- F. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 2 (Emissions Banking and Trading of Allowances) Requirements for an electric generating facility authorized under 30 TAC Chapter 116, Subchapter I:
 - (i) Title 30 TAC § 101.332 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.333 (relating to Allocation of Allowances)
 - (iii) Title 30 TAC § 101.334 (relating to Allowance Deductions)
 - (iv) Title 30 TAC § 101.335 (relating to Allowance Banking and Trading)
 - (v) Title 30 TAC § 101.336 (relating to Emission Monitoring and Compliance Demonstration and Reporting)
 - (vi) The terms and conditions by which the emission limits are established to meet the quantity of allowances for the electric generating facility are applicable requirements of this permit
- G. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 101.372 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
 - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)

- (iv) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)
 - (v) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
- 2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
 - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
 - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
 - I. Title 30 TAC § 101.222 (relating to Demonstrations)
 - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
- 3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
 - A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed either before or after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1 , shall not exceed 20% opacity averaged over a six minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

- (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(1)(E)
- (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
- (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, for 30 TAC Chapter 111, Subchapter A, Division 1 are not subject to the following periodic monitoring requirements:
 - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
 - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
 - (3) Records of all observations shall be maintained.
 - (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible

emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or

monitoring was performed to demonstrate compliance with a different requirement.

- B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
 - (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
 - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the

observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader

C. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
 - (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be

conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.

- (2) Records of all observations shall be maintained.
- (3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (4) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation

on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- F. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- G. Permit holder shall comply with the following requirements for steam generators:
 - (i) Emissions from any oil or gas fuel-fired steam generator with a heat input capacity greater than 2,500 MMBtu per hour may not exceed 0.1 pound of TSP per MMBtu of heat input, averaged over a two-hour period, as required in 30 TAC § 111.153(c) (relating to Emissions Limits for Steam Generators).
- H. Outdoor burning, as stated in 30 TAC § 111.201, shall not be authorized unless the following requirements are satisfied:
 - (i) Title 30 TAC § 111.205 (relating to Exception for Fire Training)
 - (ii) Title 30 TAC § 111.207 (relating to Exception for Recreation, Ceremony, Cooking, and Warmth)
 - (iii) Title 30 TAC § 111.209 (relating to Exception for Disposal Fires)
 - (iv) Title 30 TAC § 111.211 (relating to Exception for Prescribed Burn)

- (v) Title 30 TAC § 111.213 (relating to Exception for Hydrocarbon Burning)
 - (vi) Title 30 TAC § 111.219 (relating to General Requirements for Allowable Outdoor Burning)
 - (vii) Title 30 TAC § 111.221 (relating to Responsibility for Consequences of Outdoor Burning)
- 4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
 - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
 - B. Title 40 CFR § 60.8 (relating to Performance Tests)
 - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - D. Title 40 CFR § 60.12 (relating to Circumvention)
 - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - F. Title 40 CFR § 60.14 (relating to Modification)
 - G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
- 5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:
 - A. Title 40 CFR § 61.05 (relating to Prohibited Activities)
 - B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)
 - C. Title 40 CFR § 61.09 (relating to Notification of Start-up)
 - D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)
 - E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)
 - F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)

- G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)
 - H. Title 40 CFR § 61.15 (relating to Modification)
 - I. Title 40 CFR § 61.19 (relating to Circumvention)
6. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

Additional Monitoring Requirements

7. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached “CAM Summary” upon issuance of the permit. In addition, the permit holder shall comply with the following:
- A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
 - B. The permit holder shall report, consistent with the averaging time identified in the “CAM Summary,” deviations as defined by the deviation limit in the “CAM Summary.” Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
 - C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “CAM Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
 - D. The permit holder shall operate the monitoring, identified in the attached “CAM Summary,” in accordance with the provisions of 40 CFR § 64.7.
 - E. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.
8. The permit holder shall comply with the periodic monitoring requirements as specified in the attached “Periodic Monitoring Summary” upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs,

and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

9. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
 - A. Are incorporated by reference into this permit as applicable requirements
 - B. Shall be located with this operating permit
 - C. Are not eligible for a permit shield
10. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
11. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

12. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
13. Use of Discrete Emission Credits to comply with the applicable requirements:
 - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
 - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
 - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Protection of Stratospheric Ozone

14. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.

- A. Any on-site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air conditioning appliances using ozone depleting refrigerants or non exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holder shall ensure that regulated repairs or refrigerant removal are performed only by persons who meet the technician certification requirements of 40 CFR '82.161(a). Records shall be maintained as required by 40 CFR Part 82, Subpart F.
- B. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.

Temporary Fuel Shortages (30 TAC § 112.15)

- 15. The permit holder shall comply with the following 30 TAC Chapter 112 requirements:
 - A. Title 30 TAC § 112.15 (relating to Temporary Fuel Shortage Plan Filing Requirements)
 - B. Title 30 TAC § 112.16(a), (a)(1), and (a)(2)(B) - (C) (relating to Temporary Fuel Shortage Plan Operating Requirements)
 - C. Title 30 TAC § 112.17 (relating to Temporary Fuel Shortage Plan Notification Procedures)
 - D. Title 30 TAC § 112.18 (relating to Temporary Fuel Shortage Plan Reporting Requirements)

Alternative Requirements

- 16. The permit holder shall comply with the approved alternative means of control (AMOC); alternative monitoring, recordkeeping, or reporting requirements; or requirements determined to be equivalent to an otherwise applicable requirement contained in the Alternative Requirements attachment of this permit. Units complying with an approved alternative requirement have reference to the approval in the Applicable Requirements summary listing for the unit. The permit holder shall maintain the original documentation, from the EPA Administrator, demonstrating the method or limitation utilized. Documentation shall be maintained and made available in accordance with 30 TAC § 122.144.

Permit Location

- 17. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Acid Rain Permit Requirements

18. For units PB-B5 and PB-B6 (identified in the Certificate of Representation as units 5 and 6), located at the affected source identified by ORIS/Facility code (3494), the designated representative and the owner or operator, as applicable, shall comply with the following Acid Rain Permit requirements.

A. General Requirements

- (i) Under 30 TAC § 122.12(1) and 40 CFR Part 72, the Acid Rain Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP) and have an independent public comment process which may be separate from, or combined with the FOP.
- (ii) The owner and operator shall comply with the requirements of 40 CFR Part 72 and 40 CFR Part 76. Any noncompliance with the Acid Rain Permit will be considered noncompliance with the FOP and may be subject to enforcement action.
- (iii) The owners and operators of the affected source shall operate the source and the unit in compliance with the requirements of this Acid Rain Permit and all other applicable State and federal requirements.
- (iv) The owners and operators of the affected source shall comply with the General Terms and Conditions of the FOP that incorporates this Acid Rain Permit.
- (v) The term for the Acid Rain permit shall commence with the issuance of the FOP that incorporates the Acid Rain permit and shall be run concurrent with the remainder of the term of the FOP. Renewal of the Acid Rain permit shall coincide with the renewal of the FOP that incorporates the Acid Rain permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring Requirements

- (i) The owners and operators, and the designated representative, of the affected source and each affected unit at the source shall comply with the monitoring requirements contained 40 CFR Part 75.
- (ii) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 and any other credible evidence shall be used to determine compliance by the affected source with the acid rain emissions limitations and emissions reduction requirements for SO₂ and NO_x under the ARP.

- (iii) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emission of other pollutants or other emissions characteristics at the unit under other applicable requirements of the FCAA Amendments (42 U.S.C. 7401, as amended November 15, 1990) and other terms and conditions of the operating permit for the source.

C. SO₂ emissions requirements

- (i) The owners and operators of each source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for SO₂.
- (ii) As of the allowance transfer deadline the owners and operators of the affected source and each affected unit at the source shall hold, in the unit's compliance subaccount, allowances in an amount not less than the total annual emissions of SO₂ for the previous calendar year.
- (iii) Each ton of SO₂ emitted in excess of the acid rain emissions limitations for SO₂ shall constitute a separate violation of the FCAA amendments.
- (iv) An affected unit shall be subject to the requirements under (i) and (ii) of the SO₂ emissions requirements as follows:
 - (1) Starting January 1, 2000, an affected unit under 40 CFR § 72.6(a)(2); or
 - (2) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR § 72.6(a)(3).
- (v) Allowances shall be held in, deducted from, or transferred into or among Allowance Tracking System accounts in accordance with the requirements of the ARP.
- (vi) An allowance shall not be deducted, for compliance with the requirements of this permit, in a calendar year before the year for which the allowance was allocated.
- (vii) An allowance allocated by the EPA Administrator or under the ARP is a limited authorization to emit SO₂ in accordance with the ARP. No provision of the ARP, Acid Rain permit application, this Acid Rain Permit, or an exemption under 40 CFR §§ 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

- (viii) An allowance allocated by the EPA Administrator under the ARP does not constitute a property right.

D. NO_x Emission Requirements

- (i) The owners and operators of the source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for NO_x under 40 CFR Part 76.

E. Excess emissions requirements for SO₂ and NO_x.

- (i) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (ii) If an affected source has excess emissions in any calendar year shall, as required by 40 CFR Part 77:
 - (1) Pay, without demand, the penalty required and pay, upon demand, the interest on that penalty.
 - (2) Comply with the terms of an approved offset plan.

F. Recordkeeping and Reporting Requirements

- (i) Unless otherwise provided, the owners and operators of the affected source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the EPA Administrator.
 - (1) The certificate of representation for the designated representative for the source and each affected unit and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR § 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.
 - (2) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping (rather than a five-year period cited in 30 TAC § 122.144), the 3-year period shall apply.

- (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the ARP or relied upon for compliance certification.
- (4) Copies of all documents used to complete an acid rain permit application and any other submission under the ARP or to demonstrate compliance with the requirements of the ARP.
- (ii) The designated representative of an affected source and each affected unit at the source shall submit the reports required under the ARP including those under 40 CFR Part 72, Subpart I and 40 CFR Part 75.

G. Liability

- (i) Any person who knowingly violates any requirement or prohibition of the ARP, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR §§ 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to FCAA § 113(c).
- (ii) Any person who knowingly makes a false, material statement in any record, submission, or report under the ARP shall be subject to criminal enforcement pursuant to FCAA § 113(c) and 18 U.S.C. 1001.
- (iii) No permit revision shall excuse any violation of the requirements of the ARP that occurs prior to the date that the revision takes effect.
- (iv) The affected source and each affected unit shall meet the requirements of the ARP contained in 40 CFR Parts 72 through 78.
- (v) Any provision of the ARP that applies to an affected source or the designated representative of an affected source shall also apply to the owners and operators of such source and of the affected units at the source.
- (vi) Any provision of the ARP that applies to an affected unit (including a provision applicable to the DR of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR § 72.44 (Phase II repowering extension plans) and 40 CFR § 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR §§ 75.16, 75.17, and 75.18), the owners and operators and the DR of one affected unit shall not be liable for any violation by any other affected unit of which they are

not owners or operators or the DR and that is located at a source of which they are not owners or operators or the DR.

- (vii) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or DR of such source or unit, shall be a separate violation of the FCAA Amendments.
- H. Effect on other authorities. No provision of the ARP, an acid rain permit application, an acid rain permit, or an exemption under 40 CFR §§ 72.7 or 72.8 shall be construed as:
- (i) Except as expressly provided in Title IV of the FCAA Amendments, exempting or excluding the owners and operators and, to the extent applicable, the DR of an affected source or affected unit from compliance with any other provision of the FCAA Amendments, including the provisions of Title I of the FCAA Amendments relating to applicable National Ambient Air Quality Standards or State Implementation Plans.
 - (ii) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the FCAA Amendments.
 - (iii) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law.
 - (iv) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
 - (v) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.
- I. The number of SO₂ allowances allocated by the EPA in 40 CFR Part 73 is enforceable only by the EPA Administrator.

Clean Air Interstate Rule Permit Requirements

19. For Units PB-B5, PB-B6, PB-CT1, PB-CT2, PB-CT3, PB-CT4 and PB-CT5 (identified in the Certificate of Representation as Units 5, 6, CT1, CT2, CT3, CT4 and CT5), located at the site identified by ORIS/Facility code (3494), the designated representative and the owner or operator, as applicable, shall comply with the following Clean Air Interstate Rule (CAIR) Permit requirements. Until approval of the Texas CAIR SIP, the permit holder shall comply with the

equivalent requirements of 40 CFR Part 97 in place of the referenced 40 CFR Part 96 requirements in the Texas CAIR permit and 30 TAC Chapter 122 requirements.

A. General Requirements

- (i) Under 30 TAC § 122.420(b) and 40 CFR §§ 96.120(b) and 96.220(b) the CAIR Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP).
- (ii) The owners and operators of the CAIR NO_x and the CAIR SO₂ source shall operate the source and the unit in compliance with the requirements of this CAIR permit and all other applicable State and federal requirements.
- (iii) The owners and operators of the CAIR NO_x and the CAIR SO₂ source shall comply with the General Terms and Conditions of the FOP that incorporates this CAIR Permit.
- (iv) The term for the initial CAIR permit shall commence with the issuance of the revision containing the CAIR permit and shall be the remaining term for the FOP that incorporates the CAIR permit. Renewal of the initial CAIR permit shall coincide with the renewal of the FOP that incorporates the CAIR permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring and Reporting Requirements

- (i) The owners and operators, and the CAIR designated representative, of the CAIR NO_x source and each CAIR NO_x unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HH.
- (ii) The owners and operators, and the CAIR designated representative, of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HHH.
- (iii) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH and any other credible evidence shall be used to determine compliance by the CAIR NO_x source with the CAIR NO_x emissions limitation.
- (iv) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH and any other credible evidence shall be used to determine compliance by the CAIR SO₂ source with the CAIR SO₂ emissions limitation.

C. NO_x emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR § 96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HH.
- (ii) A CAIR NO_x unit shall be subject to the requirements of paragraph C.(i) of this CAIR Permit starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.170(b)(1), (2), or (5).
- (iii) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (iv) CAIR NO_x allowances shall be held in, deducted from or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FF or Subpart GG.
- (v) A CAIR NO_x allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR NO_x allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FF or Subpart GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in this CAIR permit.

D. NO_x excess emissions requirement

- (i) If a CAIR NO_x source emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation, the owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR § 96.154(d)(1) and pay any fine, penalty, or

assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.

- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable State law.

E. SO₂ emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, CAIR SO₂ allowances available for compliance deductions for the control period under 40 CFR § 96.254(a) and (b) in an amount not less than the tons of total sulfur dioxides emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HHH.
- (ii) A CAIR SO₂ unit shall be subject to the requirements of paragraph E.(i) of this CAIR Permit starting on the later of January 1, 2010, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.270(b)(1), (2), or (5).
- (iii) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (iv) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FFF or Subpart GGG.
- (v) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR SO₂ allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or Subpart GGG, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ unit's

compliance account is incorporated automatically in this CAIR permit.

F. SO₂ excess emissions requirements

- (i) If a CAIR SO₂ source emits sulfur dioxides during any control period in excess of the CAIR SO₂ emissions limitation, the owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR § 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable State law.

G. Recordkeeping and Reporting Requirements

- (i) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source and the CAIR SO₂ source and each CAIR SO₂ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.
 - (1) The certificate of representation under 40 CFR §§ 96.113 and 96.213 for the CAIR NO_x designated representative for the source and each CAIR NO_x unit and the CAIR SO₂ designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR §§ 96.113 and 96.213 changing the CAIR designated representative.
 - (2) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH and Subpart HHH, provided that to the extent that these subparts provide for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program and CAIR SO₂ Trading Program or relied upon for compliance determinations.

- (4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x Annual Trading Program and CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program and CAIR SO₂ Trading Program.
 - (ii) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source and a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program including those under 40 CFR Part 96, Subpart HH and Subpart HHH.
- H. The CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program contained in 40 CFR Part 96, Subparts AA through II.
- I. The CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program contained in 40 CFR Part 96, Subparts AAA through III.
- J. Any provision of the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program that applies to a CAIR NO_x source or CAIR SO₂ source or the CAIR designated representative of a CAIR NO_x source or CAIR SO₂ source shall also apply to the owners and operators of such source and the units at the source.
- K. Any provision of the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program that applies to a CAIR NO_x unit or CAIR SO₂ unit or the CAIR designated representative of a CAIR NO_x unit or CAIR SO₂ unit shall also apply to the owners and operators of such unit.
- L. No provision of the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, a CAIR permit application, a CAIR permit, or an exemption under 40 CFR §§ 96.105 or 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit or a CAIR SO₂ source or CAIR SO₂ unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

New Source Review Authorization References

Alternative Requirement

Applicable Requirements Summary

Unit Summary	27
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Applicable Requirements Summary	29
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Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRP111A1A	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	PB-BFP6V, PB- ED6S, PB-EVAP5, PB-EVAP6, PB- LOR5VEV, PB- LOR6VEV	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRPBOILSTK	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	PB-S5A, PB-S5B, PB-S6	R1111-GASONLY	30 TAC Chapter 111, Visible Emissions	Vent Source = The source of the vent is not a steam generator fired by solid fossil fuel, oil or a mixture of oil and gas and is not a catalyst regenerator for a fluid bed catalytic cracking unit.
GRPBOILSTK	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	PB-S5A, PB-S5B, PB-S6	R1111- W/LQDFUEL	30 TAC Chapter 111, Visible Emissions	SIP Violation = The source is able to comply with applicable PM and opacity regulations without the use of PM collection equipment and has not been found to be in violation of any visible emission standard in a State Implementation Plan., Vent Source = The source of the vent is a steam generator that burns oil or a mixture of oil and gas.
GRPTURBINE	STATIONARY TURBINES	PB-CT1, PB-CT2, PB-CT3, PB-CT4, PB-CT5	6oGG-GASCFMS	40 CFR Part 60, Subpart GG	No changing attributes.
GRPTURBINE	STATIONARY TURBINES	PB-CT1, PB-CT2, PB-CT3, PB-CT4, PB-CT5	6oGG-NATGAS	40 CFR Part 60, Subpart GG	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRPTURBINE	STATIONARY TURBINES	PB-CT1, PB-CT2, PB-CT3, PB-CT4, PB-CT5	60GG- W/LQDFUEL	40 CFR Part 60, Subpart GG	No changing attributes.
GRPTURBSTK	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	PB-CTS1, PB- CTS2, PB-CTS3, PB-CTS4, PB- CTS5	R1111	30 TAC Chapter 111, Visible Emissions	No changing attributes.
PB-ASBDA	MSW / WASTE DISPOSAL SITE	N/A	61M	40 CFR Part 61, Subpart M	No changing attributes.
PB-B5	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	R1121	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
PB-B6	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	R1111	30 TAC Chapter 111, Nonagricultural Processes	No changing attributes.
PB-B6	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	R1121	30 TAC Chapter 112, Sulfur Compounds	No changing attributes.
PB-CLTWR6	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111	30 TAC Chapter 111, Nonagricultural Processes	No changing attributes.
PB-DFP	SRIC ENGINES	N/A	63ZZZZ	40 CFR Part 63, Subpart ZZZZ	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRP111A1A	EP	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(A) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 30% averaged over a six minute period.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRPBOILSTK	EP	R1111-GASONLY	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRPBOILSTK	EP	R1111-W/LQDFUEL	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
GRPTURBINE	EU	60GG-GASCFMS	SO2	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) § 60.334(h)(4) **See Alternative Requirements	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTURBINE	EU	6oGG-GASCFMS	NOX	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3) § 60.332(f) § 60.332(i)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	§ 60.334(a) § 60.334(g) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(i) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(2) § 60.335(b)(4) § 60.335(c)(1) ** See CAM Summary	§ 60.334(a) § 60.334(g)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(5)
GRPTURBINE	EU	6oGG-NATGAS	SO2	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) [G]§ 60.334(h)(3)	None	None
GRPTURBINE	EU	6oGG-NATGAS	NOX	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3) § 60.332(f) § 60.332(i)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	§ 60.334(a) § 60.334(g) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(i) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(2) § 60.335(b)(4) § 60.335(c)(1) ** See CAM Summary	§ 60.334(a) § 60.334(g)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(5)
GRPTURBINE	EU	6oGG-W/LQDFUEL	SO2	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) § 60.334(h)(1) § 60.334(i) § 60.334(i)(1) § 60.334(j) § 60.334(j)(2)(i) § 60.334(j)(2)(ii) § 60.335(b)(10) § 60.335(b)(10)(f)	§ 60.334(i) § 60.334(i)(1)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPTURBINE	EU	6oGG-W/LQDFUEL	NOX	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3) § 60.332(f) § 60.332(i)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	§ 60.334(a) § 60.334(g) § 60.334(j) § 60.334(j)(1) [G]§ 60.334(j)(1)(i) [G]§ 60.335(a) § 60.335(b)(1) § 60.335(b)(2) § 60.335(b)(4) § 60.335(c)(1) ** See CAM Summary	§ 60.334(a) § 60.334(g)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(5)
GRPTURBSTK	EP	R1111	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
PB-ASBDA	PRO	61M	112(B) HAPS	40 CFR Part 61, Subpart M	[G]§ 61.154(c) [G]§ 61.154(b) § 61.154(e)(3) § 61.154(g)	Either meet the no visible emissions requirements of §61.154(a), or cover any asbestos-containing waste material per the methods specified.	None	[G]§ 61.154(e)(1) § 61.154(e)(4) § 61.154(f) § 61.154(i)	[G]§ 61.153(a)(5) § 61.153(b) § 61.154(e)(2) § 61.154(h) § 61.154(i) [G]§ 61.154(j)
PB-B5	EU	R1121	SO2	30 TAC Chapter 112, Sulfur Compounds	§ 112.9(a)	No person may cause, suffer, allow, or permit emissions of SO2 from any liquid fuel-fired steam generator, furnace, or heater to exceed 440 ppmv at actual stack conditions and averaged over 3-hours.	§ 112.2(a) ** See Periodic Monitoring Summary	§ 112.2(c)	§ 112.2(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PB-B6	EU	R1111	PM	30 TAC Chapter 111, Nonagricultural Processes	§ 111.153(c)	No person may cause, suffer, allow, or permit emissions of particulate matter from any oil or gas fuel-fired steam generator with a heat input greater than 2,500 million Btu per hour to exceed 0.1 pound of total suspended particulate per million Btu input averaged over a two-hour period.	** See Periodic Monitoring Summary	None	None
PB-B6	EU	R1121	SO2	30 TAC Chapter 112, Sulfur Compounds	§ 112.9(a)	No person may cause, suffer, allow, or permit emissions of SO2 from any liquid fuel-fired steam generator, furnace, or heater to exceed 440 ppmv at actual stack conditions and averaged over 3-hours.	§ 112.2(a) ** See Periodic Monitoring Summary	§ 112.2(c)	§ 112.2(b)
PB-CLTWR6	EP	R1111	PM	30 TAC Chapter 111, Nonagricultural Processes	§ 111.151(a) § 111.151(c)	No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators).	** See Periodic Monitoring Summary	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
PB-DFP	EU	63ZZZZ	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6602-Table2c.1 § 63.6595(a)(1) § 63.6605(a) § 63.6605(b) § 63.6625(e) § 63.6625(h) § 63.6625(i) § 63.6640(b) § 63.6640(f)(1) § 63.6640(f)(2) § 63.6640(f)(2)(i) § 63.6640(f)(3)	For each existing emergency stationary CI RICE and black start stationary CI RICE, located at a major source, you must comply with the requirements as specified in Table 2c.1.a-c.	§ 63.6625(f) § 63.6625(i) § 63.6640(a) § 63.6640(a)-Table6.9.a.i § 63.6640(a)-Table6.9.a.ii § 63.6640(b)	§ 63.6625(i) § 63.6655(a) § 63.6655(a)(1) § 63.6655(d) § 63.6655(e) § 63.6655(f) § 63.6660(a) § 63.6660(b) § 63.6660(c)	§ 63.6640(b) § 63.6640(e) § 63.6650(f)

Additional Monitoring Requirements

Compliance Assurance Monitoring Summary 35

Periodic Monitoring Summary..... 38

CAM Summary

Unit/Group/Process Information	
ID No.: GRPTURBINE	
Control Device ID No.: SWIS	Control Device Type: Steam/Water Injection System
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG-GASCFMS
Pollutant: NOX	Main Standard: § 60.332(a)(1)
Monitoring Information	
Indicator: Fuel and water injection rates	
Minimum Frequency: Once per 15-minute quadrant of the clock hour, according to 60.13(h)	
Averaging Period: Unit operating hour, according to 60.13(h)	
Deviation Limit: Water to Fuel Ratio < Acceptable Water to Fuel Ratio	
<p>CAM Text: For each combustion turbine, the permit holder shall monitor and record the fuel consumption, the water injection rate, the ratio of water to fuel being fired in the turbine, and the acceptable ratio of water to fuel according to the requirements of 60.13(h) and 60.334.</p> <p>Each fuel and water injection rate monitoring device shall be calibrated at least annually or at a frequency in accordance with the either manufacturer's specifications or other written procedures that provide an adequate assurance of compliance.</p> <p>As required by 40 CFR § 64.3(b)(2), if the permit holder modifies existing monitoring equipment used for CAM purposes or installs new monitoring equipment used for CAM purposes, the permit holder will verify the operational status of the monitoring equipment based upon manufacturer's requirements or recommendations.</p> <p>Fuel and water injection rate monitoring devices shall be located to measure the amount of fuel and water injected into the combustor.</p> <p>The permit holder shall report a deviation for each unit operating hour for which the average water to fuel ratio falls below the acceptable water to fuel injection ratio.</p>	

CAM Summary

Unit/Group/Process Information	
ID No.: GRPTURBINE	
Control Device ID No.: SWIS	Control Device Type: Steam/Water Injection System
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG-NATGAS
Pollutant: NOX	Main Standard: § 60.332(a)(1)
Monitoring Information	
Indicator: Fuel and water injection rates	
Minimum Frequency: Once per 15-minute quadrant of the clock hour, according to 60.13(h)	
Averaging Period: Unit operating hour, according to 60.13(h)	
Deviation Limit: Water to Fuel Ratio < Acceptable Water to Fuel Ratio	
<p>CAM Text: For each combustion turbine, the permit holder shall monitor and record the fuel consumption, the water injection rate, the ratio of water to fuel being fired in the turbine, and the acceptable ratio of water to fuel according to the requirements of 60.13(h) and 60.334.</p> <p>Each fuel and water injection rate monitoring device shall be calibrated at least annually or at a frequency in accordance with the either manufacturer's specifications or other written procedures that provide an adequate assurance of compliance.</p> <p>As required by 40 CFR § 64.3(b)(2), if the permit holder modifies existing monitoring equipment used for CAM purposes or installs new monitoring equipment used for CAM purposes, the permit holder will verify the operational status of the monitoring equipment based upon manufacturer's requirements or recommendations.</p> <p>Fuel and water injection rate monitoring devices shall be located to measure the amount of fuel and water injected into the combustor.</p> <p>The permit holder shall report a deviation for each unit operating hour for which the average water to fuel ratio falls below the acceptable water to fuel injection ratio.</p>	

CAM Summary

Unit/Group/Process Information	
ID No.: GRPTURBINE	
Control Device ID No.: SWIS	Control Device Type: Steam/Water Injection System
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart GG	SOP Index No.: 60GG-W/LQDFUEL
Pollutant: NOX	Main Standard: § 60.332(a)(1)
Monitoring Information	
Indicator: Fuel and water injection rates	
Minimum Frequency: Once per 15-minute quadrant of the clock hour, according to 60.13(h)	
Averaging Period: Unit operating hour, according to 60.13(h)	
Deviation Limit: Water to Fuel Ratio < Acceptable Water to Fuel Ratio	
<p>CAM Text: For each combustion turbine, the permit holder shall monitor and record the fuel consumption, the water injection rate, the ratio of water to fuel being fired in the turbine, and the acceptable ratio of water to fuel according to the requirements of 60.13(h) and 60.334.</p> <p>Each fuel and water injection rate monitoring device shall be calibrated at least annually or at a frequency in accordance with the either manufacturer's specifications or other written procedures that provide an adequate assurance of compliance.</p> <p>As required by 40 CFR § 64.3(b)(2), if the permit holder modifies existing monitoring equipment used for CAM purposes or installs new monitoring equipment used for CAM purposes, the permit holder will verify the operational status of the monitoring equipment based upon manufacturer's requirements or recommendations.</p> <p>Fuel and water injection rate monitoring devices shall be located to measure the amount of fuel and water injected into the combustor.</p> <p>The permit holder shall report a deviation for each unit operating hour for which the average water to fuel ratio falls below the acceptable water to fuel injection ratio.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRP111A1A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(A)
Monitoring Information	
Indicator: Visible emissions	
Minimum Frequency: Quarterly	
Averaging Period: Six minutes	
Deviation Limit: Maximum opacity = 30%	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. A visible emissions observation is not required for sources that do not operate at anytime during the calendar quarter.</p> <p>Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is 30%, six-minute average. If the result of the Test Method 9 is six-minute average above 30%, the permit holder shall report a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRPBOILSTK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-GASONLY
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Quarterly or anytime an alternate fuel is used	
Averaging Period: n/a	
<p>Deviation Limit: If liquid fuel is fired for > 24 consecutive hrs, consider/report as deviation or conduct observation of stationary vent for each period to determine if visible emissions observed. Any opacity readings > 15% shall be reported as a deviation.</p>	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If liquid fuel is fired for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Documentation of the observations shall be maintained. If visible emissions are present during the firing of liquid fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above 15% opacity shall be reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRPBOILSTK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-W/LQDFUEL
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Quarterly or anytime an alternative fuel is used	
Averaging Period: n/a	
<p>Deviation Limit: If liquid fuel is fired for > 24 consecutive hrs, consider/report as deviation or conduct observation of stationary vent for each period to determine if visible emissions observed. Any opacity readings > 15% shall be reported as a deviation.</p>	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If liquid fuel is fired for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Documentation of the observations shall be maintained. If visible emissions are present during the firing of liquid fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above 15% opacity shall be reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: GRPTURBSTK	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111
Pollutant: OPACITY	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel type	
Minimum Frequency: Quarterly or anytime an alternative fuel is used.	
Averaging Period: n/a	
<p>Deviation Limit: If liquid fuel is fired for > 24 consecutive hrs, consider/report as deviation or conduct observation of stationary vent for each period to determine if visible emissions observed. Any opacity readings > 15% shall be reported as a deviation.</p>	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If liquid fuel is fired for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Documentation of the observations shall be maintained. If visible emissions are present during the firing of liquid fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above 15% opacity shall be reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PB-B5	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R1121
Pollutant: SO ₂	Main Standard: § 112.9(a)
Monitoring Information	
Indicator: Fuel oil sulfur content	
Minimum Frequency: Quarterly and within 24 hours of any fuel change	
Averaging Period: n/a	
Deviation Limit: Fuel oil < 0.7 % sulfur	
<p>Periodic Monitoring Text: Permit holders of sites subject to 30 TAC 112.9(a) shall perform the following to meet the Periodic Monitoring requirements: Maintain fuel purchase and composition records together with a record of any change in fuel composition to demonstrate that only fuel oil < 0.7% sulfur is burned in the unit. Should fuel blending be practiced, document the procedure to ensure the fuel oil used meets the sulfur requirement and record sulfur composition of the blended fuel which is used.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PB-B6	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Nonagricultural Processes	SOP Index No.: R1111
Pollutant: PM	Main Standard: § 111.153(c)
Monitoring Information	
Indicator: Visible emissions	
Minimum Frequency: Quarterly or anytime an alternate fuel is used	
Averaging Period: n/a	
<p>Deviation Limit: If liquid fuel is fired for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any opacity readings > 15% shall be reported as a deviation.</p>	
<p>Periodic Monitoring Text: Record the type of fuel used by the unit. If liquid fuel is fired for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Documentation of the observations shall be maintained. If visible emissions are present during the firing of liquid fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above 15% opacity shall be reported as a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PB-B6	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R1121
Pollutant: SO ₂	Main Standard: § 112.9(a)
Monitoring Information	
Indicator: Fuel oil sulfur content	
Minimum Frequency: Quarterly and within 24 hours of any fuel change	
Averaging Period: n/a	
Deviation Limit: Fuel oil < 0.7 % sulfur	
<p>Periodic Monitoring Text: Permit holders of sites subject to 30 TAC 112.9(a) shall perform the following to meet the Periodic Monitoring requirements: Maintain fuel purchase and composition records together with a record of any change in fuel composition to demonstrate that only fuel oil < 0.7% sulfur is burned in the unit. Should fuel blending be practiced, document the procedure to ensure the fuel oil used meets the sulfur requirement and record sulfur composition of the blended fuel which is used.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PB-CLTWR6	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Nonagricultural Processes	SOP Index No.: R1111
Pollutant: PM	Main Standard: § 111.151(a)
Monitoring Information	
Indicator: Total dissolved solids	
Minimum Frequency: Quarterly	
Averaging Period: n/a	
Deviation Limit: Maximum total dissolved solids = 8000 ppmv	
Periodic Monitoring Text: Measure and record the total dissolved solids (TDS) concentration of the cooling tower water. If the measured TDS exceeds 8000 ppmv, it shall be recorded as a deviation	

New Source Review Authorization References

New Source Review Authorization References 47

New Source Review Authorization References by Emission Unit.....48

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX663M1	Issuance Date: 04/06/2015
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 45433	Issuance Date: 07/05/2012
Authorization No.: 9659	Issuance Date: 04/06/2015
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.227	Version No./Date: 09/04/2000
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.412	Version No./Date: 09/04/2000
Number: 106.433	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000
Number: 5	Version No./Date: 05/12/1981
Number: 6	Version No./Date: 11/05/1986
Number: 9	Version No./Date: 05/08/1972
Number: 51	Version No./Date: 11/05/1986
Number: 58	Version No./Date: 05/12/1981

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
PB-ASBDA	ASBESTOS DISPOSAL AREA	SOLID WASTE REGISTRATION NO. 31244 (No air emissions – air addendum not required)
PB-B5	UNIT NO. 5 BOILER	45433
PB-B6	UNIT NO. 6 BOILER	45433
PB-BFP6V	UNIT 6 BOILER FEED PUMP LUBE OIL RESERVOIR VENT	45433
PB-CLTWR6	UNIT 6 COOLING TOWER	9/05/08/1972
PB-CT1	COMBUSTION TURBINE NO. 1	9659, PSDTX663M1
PB-CT2	COMBUSTION TURBINE NO. 2	9659, PSDTX663M1
PB-CT3	COMBUSTION TURBINE NO. 3	9659, PSDTX663M1
PB-CT4	COMBUSTION TURBINE NO. 4	9659, PSDTX663M1
PB-CT5	COMBUSTION TURBINE NO. 5	9659, PSDTX663M1
PB-CTS1	COMBUSTION TURBINE NO. 1 STACK	9659, PSDTX663M1
PB-CTS2	COMBUSTION TURBINE NO. 2 STACK	9659, PSDTX663M1
PB-CTS3	COMBUSTION TURBINE NO. 3 STACK	9659, PSDTX663M1
PB-CTS4	COMBUSTION TURBINE NO. 4 STACK	9659, PSDTX663M1
PB-CTS5	COMBUSTION TURBINE NO. 5 STACK	9659, PSDTX663M1
PB-DFP	DIESEL FIRE PUMP	6/11/05/1986

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
PB-ED6S	EMERGENCY DIESEL GENERATOR 6 STACK	5/05/12/1981
PB-EVAP ₅	UNIT 5 COOLING TOWER EXHAUST	9/05/08/1972
PB-EVAP ₆	UNIT 6 COOLING TOWER	9/05/08/1972
PB-LOR ₅ VEV	UNIT 5 LUBE OIL RESERVOIR VAPOR EXTRACTOR VENT	45433
PB-LOR ₆ VEV	UNIT 6 LUBE OIL RESERVOIR VAPOR EXTRACTOR VENT	45433
PB-S ₅ A	UNIT NO. 5 BOILER STACK A	45433
PB-S ₅ B	UNIT NO. 5 BOILER STACK B	45433
PB-S ₆	UNIT NO. 6 BOILER STACK	45433

Alternative Requirement

Alternative Requirement51



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI

ALLIED BANK TOWER AT FOUNTAIN PLACE
1445 ROSS AVENUE
DALLAS, TEXAS 75202

FEB 02 1988

TUGCO

FEB 4 1988

REPLY TO: 6T-ET

ENVIRO SVC.

Mr. J.R. Robertson
T.U. Electric
400 N. Olive
Dallas, Texas 75201

Re: Proposed Custom Fuel Schedule and Test Methods for Permian Basin
Combustion Turbine

Dear Mr. Robertson:

In response to a request from T.U. Electric (TUE) for approval of a custom fuel monitoring schedule and alternative sampling procedures concerning testing and monitoring at their Permian Basin Combustion Turbine Project according to the requirements of Subpart GG and PSD-TX-663, we have conducted a review of the proposals submitted to the Environmental Protection Agency (EPA) by the Texas Air Control Board (TACB) in a letter dated December 14, 1987. In a meeting conducted between EPA and T.U. Electric on January 19, 1988, as well as subsequent telephone conversations, the following are EPA's understanding of the issues as agreed upon:

1. The EPA agrees that reduced monitoring of the fuel gas maybe sufficient to ensure compliance with NSPS, Subpart GG, based on the low sulfur content of the fuel. EPA therefore approves the custom fuel sampling schedule subject to the conditions described in Attachment I for natural gas. EPA has also been informed of an additional natural gas pipeline that will be available at the plant. Pending review of the data to substantiate that the fuel sulfur content in this natural gas is sufficiently low enough to assure compliance with the standard, the custom fuel schedule outlined in Attachment I will be approved for this additional pipeline gas.
2. The distillate fuel oil fired in the combustion turbines will be monitored for sulfur content at the refinery batch tank to show compliance with the sulfur limit prior to delivery of every new batch. Every twentieth truck entering the facility shall be monitored for the sulfur content of the fuel oil arriving from the refinery and in addition, the bulk storage tank shall be monitored for sulfur content on a semi-annual basis. All sampling shall be conducted in accordance to an approved ASTM reference methods and records shall be maintained on site for all required sampling for

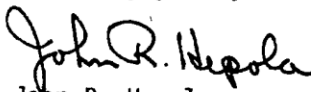
a period of two (2) years. Any result that exceeds the contract specified limits may be used for subsequent enforcement action at the discretion of the agency. If the results of the testing indicates that the sulfur or ash content of the fuel-oil exceeds 80% of the standard, the source will need to inform the agency specifically of those results within seven (7) working days and this may result in a request for further testing. All records will be used to determine compliance with the standard.

3. The EPA disapproves the single-point NO_x sampling for T.U. Electric. T.U. Electric shall choose points for NO_x sampling at the points of lowest O₂ concentration in accordance with the procedures outlined in Method 20. The stack gas flow rate and heat content of the natural gas burned shall be determined using the F factor for natural gas. An accurate flow measuring device shall be used for determining the natural gas burning rate. The flow meters should be calibrated prior to the sampling period. The equations used for F factor calculations are enclosed with this letter as Attachment II.
4. For particulate sampling, T.U. Electric shall choose 24 traverse points as indicated on the enclosed drawing (Attachment III). Twelve (12) points should be selected from both diameters. For the east-west diameter, the following procedure shall be selected:
 1. One (1) point from spaces A and F
 2. Two (2) points from spaces B and E
 3. Three (3) points from spaces C and D

Velocity pressures shall be measured and recorded for use in calculating isokinetic sampling rates; however, the stack gas flow rate shall be calculated from F-factor equations in Attachment III.

If you have any questions, please call Barbara Vallone of my staff at (214) 655-7229.

Sincerely yours,



John R. Hepola
Chief

Air Enforcement Branch (6T-E)

Enclosure(s)

cc: Jan H. Moneysmith w/Enclosures
TACB, Austin

Randy Hamilton
TACB, Austin

Enclosure

Conditions for Custom Fuel Sampling Schedule for Stationary Gas Turbines

1. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.
2. Sulfur Monitoring
 - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).
 - b. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
 - c. If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - d. Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the Texas Air Control Board (TACB) of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the TACB of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

Equations used for F-factor QA procedures (English units)

1. Calculation of F-Factor and F_c-factor

$$(Eq. 1) F = \frac{10^6 [3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)]}{\text{Gross Calorific Value (GCV)}}$$

$$(Eq. 2) F_c = \frac{321 \times 10^3 (\%C)}{\text{GCV}}$$

H, C, N, S and O are content by weight using ultimate analysis ASTM analysis methods D1137-53 (75), D1945-64 (76), or D1946-77

Gross calorific value (BTU/lb) is determined by ASTM test methods D1826-77

2. Calculation of Emission Rate using F-factors, O₂ and CO₂ data

$$(Eq. 3) E = C \cdot F \frac{(20.9)}{(20.9 - \%O_2)}$$

$$(Eq. 4) E = C \cdot F_c \frac{(100)}{(\%CO_2)}$$

E = pollutant emissions (lb/10⁶ BTU)

C = pollutant concentration (lb/dscf)

= ppm × Molecular Weight × (2.59 × 10⁻⁹ lb/dscf per ppm)

F = The calculated F-factor using the above equation or (Eq. 1)
 assume $F = 8,710 \text{ dscf}/10^6 \text{ BTU}$ if burning natural gas

F_c = The calculated F-factor using the above equation - Eq. 2
 or assume $F_c = 1,040 \frac{\text{dscf-co}_2}{10^6 \text{ BTU}}$ for natural gas
 $F_c = 1,190 \frac{\text{dscf-co}_2}{10^6 \text{ BTU}}$ for propane
 $F_c = 1,250 \frac{\text{dscf-co}_2}{10^6 \text{ BTU}}$ for butane

2. Calculation of Heat Input Rate

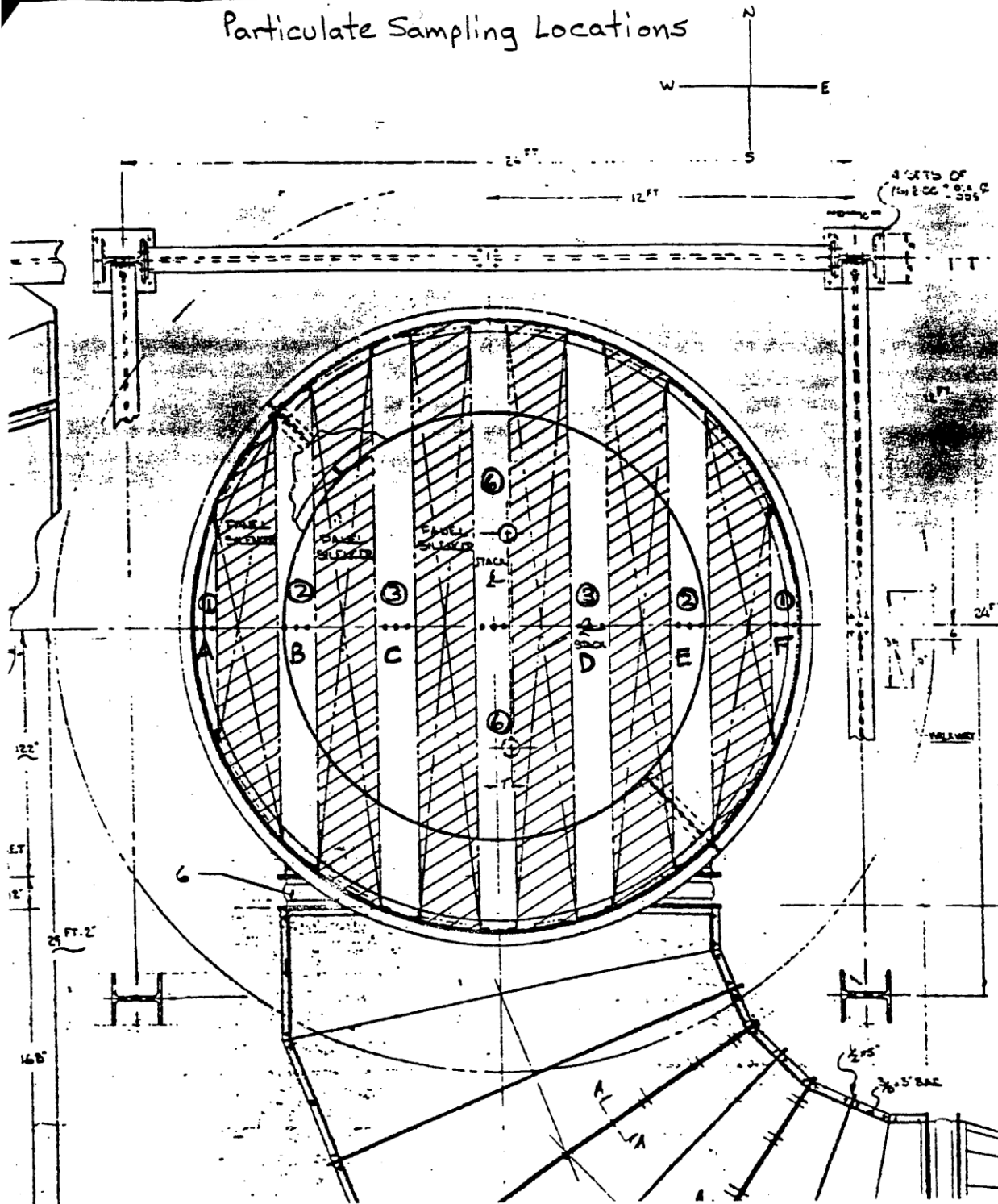
(Eq. 5) Heat Input Rate = Heating Value of Fuel (BTU/scf) \times Fuel
 Flow Rate (scf/hr) = BTU/hr

3. Calculation of Emission Rate (lb/hr)

$E_1 (\text{lb/hr}) = E (\text{lb}/10^6 \text{ BTU}) \times \text{Heat Input Rate} (10^6 \text{ BTU/hr})$

E = the emission rate calculated by Eq. 3 or Eq. 4
 Heat Input Rate = as calculated by Eq. 5

Particulate Sampling Locations





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
ALLIED BANK TOWER AT FOUNTAIN PLACE
1445 ROSS AVENUE
DALLAS, TEXAS 75202

PBSES
Fuel Oil
monitors

REPLY TO: 6T-ET

FEB 25 1988

FEB 26 1988

Mr. J. R. Robertson
T.U. Electric
400 N. Olive
Dallas, Texas 75201

ENVIRO SVC.

Re: Clarification of Approved Custom Fuel Monitoring Schedule
and Test Methods for the Permian Basin Combustion Turbine
(PSD-TX-663)

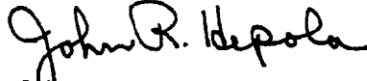
Dear Mr. Robertson:

This is a response to your request for clarifications on several issues agreed upon by the Environmental Protection Agency (EPA) in a letter dated February 2, 1988. The issues pertain to a custom fuel monitoring schedule for fuel gas and fuel oil to be used in the TU Electric Permian Basin combustion turbines as well as test procedures to be used in the initial performance test as required by the Prevention of Significant Deterioration (PSD) permit (PSD-TX-663). The following are the clarifications of issues discussed between the EPA and TU Electric:

1. Monitoring of fuel nitrogen content of the fuel oil shall not be required.
2. After a statistical analysis of the fuel oil analysis reports submitted to the EPA from TU Electric on January 26, 1988, it has been determined that an average sulfur content of the fuel oil is .292 weight percent (wt%) with a standard deviation of .052. This information indicates that requiring the source to inform the agency if the fuel sulfur content exceeds 80% of the permitted standard is an appropriate requirement in order to permit an initial warning to whether the fuel oil sulfur content and resultant SO₂ emissions potentially jeopardize the PSD emission limit such that corrective action can be taken prior to combustion.
3. The stack flow rate and heat content of the fuel oil burned shall be determined using the F-factor for fuel-oil.

If you have any questions, please call Barbara Vallone at (214) 655-7229.

Sincerely yours,

A handwritten signature in cursive script that reads "John R. Hepola".

John R. Hepola

Chief

Air Enforcement Branch (6T-E)

cc: Jan H. Moneysmith
TACB, Austin

Randy Hamilton
TACB, Austin



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI

1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202

OCT 25 1988

Mr. Gerald R. Johnson
Manager of Environmental Services
TU Electric
Skyway Tower
400 N. Olive Street L.B. 81
Dallas, Texas 75201

Re: Proposed Custom Fuel Schedule Permian Basin Combustion
Turbine

Dear Mr. Johnson:

This is in response to your September 28, 1988, letter to the Texas Air Control Board (TACB) containing your request under Title 40 CFR 60.334(b)(2) for a custom fuel sampling schedule for monitoring the sulfur and nitrogen content of an additional fuel supply line to the Permian Basin Combustion Turbine Site.

The U.S. Environmental Protection Agency (EPA) approved a custom fuel monitoring schedule on February 2, 1988, for the existing fuel supply line at the Permian Basin Combustion Turbine Site, with approval of the additional pipeline pending review of the gas analysis data verifying the low sulfur content of the fuel. The EPA has reviewed the fuel data received on September 28, 1988. EPA agrees that reduced monitoring of the fuel gas may be sufficient to ensure compliance with the Standards of Performance for Stationary Gas Turbines, 40 CFR 60, Subpart GG, based on the low sulfur content of the fuel. EPA therefore approves the custom fuel sampling schedule for the additional fuel supply line. This custom schedule approved herein shall be in accordance with the conditions described in Attachment 1.

If you have any questions, please feel free to call Ms. Celeste Steen of my staff at (214) 655-7229.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "John R. Hepola".

John R. Hepola
Chief
Air Enforcement Branch (6T-E)

Enclosure

ATTACHMENT 1

Conditions for Custom Fuel Sampling Schedule for Stationary Gas Turbines

1. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.
2. Sulfur Monitoring
 - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are: ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).
 - b. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
 - c. If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - d. Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the Texas Air Control Board (TACB) of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the TACB of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

Appendix A

Acronym List	62
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Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
COMS	continuous opacity monitoring system
CVS	closed-vent system
D/FW	Dallas/Fort Worth (nonattainment area)
DR	Designated Representative
ELP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
GF	grandfathered
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MMBtu/hr	Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NO _x	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PM	particulate matter
ppmv	parts per million by volume
PSD	prevention of significant deterioration
RO	Responsible Official
SO ₂	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

Appendix B

Major NSR Summary Table..... 64

Major NSR Summary Table

Permit Number: 9659/PSDTX663M1				Issuance Date: 04/06/2015			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
PB-CTS1	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	NO _x	376	1,410	2, 3, 7, 8, 9, 10, 14	2, 7, 8, 9, 10, 14, 17	2, 7, 9
PB-CTS1	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	CO	22.0	82.5		17	
PB-CTS1	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	VOC	8.7	32.6		17	
PB-CTS1	GE MS7001EA Combustion Turbine, Gas Firing (5) *	SO ₂	15.2	57.0	2, 5, 14	2, 14, 17	2
PB-CTS1	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM	20.6	77.3	14	14, 17	
PB-CTS1	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM ₁₀	20.6	77.3	14	14, 17	
PB-CTS1	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM _{2.5}	20.6	77.3	14	14, 17	
PB-CTS1	GE MS7001EA Combustion Turbine, Oil Firing (5) *	SO ₂	520	1,950	2, 5, 7, 8, 9, 14	2, 7, 8, 9, 14, 17	2, 7, 9
PB-CTS1	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM	51.8	194	7, 8, 9, 14	7, 8, 9, 14, 17	7, 9
PB-CTS1	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM ₁₀	51.8	194	14	14, 17	
PB-CTS1	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM _{2.5}	51.8	194	14	14, 17	
PB-CTS1	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	CO	250	--	14	14, 17	
PB-CTS1	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	VOC	98.9	--	14	14, 17	
PB-CTS2	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	NO _x	376	1,410	2, 3, 7, 8, 9, 10, 14	2, 7, 8, 9, 10, 14, 17	2, 7, 9
PB-CTS2	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	CO	22.0	82.5		17	
PB-CTS2	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	VOC	8.7	32.6		17	
PB-CTS2	GE MS7001EA Combustion Turbine, Gas Firing (5) *	SO ₂	15.2	57.0	2, 5, 14	2, 14, 17	2
PB-CTS2	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM	20.6	77.3	14	14, 17	
PB-CTS2	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM ₁₀	20.6	77.3	14	14, 17	
PB-CTS2	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM _{2.5}	20.6	77.3	14	14, 17	
PB-CTS2	GE MS7001EA Combustion Turbine, Oil Firing (5) *	SO ₂	520	1,950	2, 5, 7, 8, 9, 14	2, 7, 8, 9, 14, 17	2, 7, 9
PB-CTS2	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM	51.8	194	7, 8, 9, 14	7, 8, 9, 14, 17	7, 9
PB-CTS2	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM ₁₀	51.8	194	14	14, 17	
PB-CTS2	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM _{2.5}	51.8	194	14	14, 17	

Permit Number: 9659/PSDTX663M1			Issuance Date: 04/06/2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
PB-CTS2	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	CO	250	--	14	14, 17	
PB-CTS2	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	VOC	98.9	--	14	14, 17	
PB-CTS3	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	NO _x	376	1,410	2, 3, 7, 8, 9, 10, 14	2, 7, 8, 9, 10, 14, 17	2, 7, 9
PB-CTS3	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	CO	22.0	82.5		17	
PB-CTS3	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	VOC	8.7	32.6		17	
PB-CTS3	GE MS7001EA Combustion Turbine, Gas Firing (5) *	SO ₂	15.2	57.0	2, 5, 14	2, 14, 17	2
PB-CTS3	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM	20.6	77.3	14	14, 17	
PB-CTS3	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM ₁₀	20.6	77.3	14	14, 17	
PB-CTS3	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM _{2.5}	20.6	77.3	14	14, 17	
PB-CTS3	GE MS7001EA Combustion Turbine, Oil Firing (5) *	SO ₂	520	1,950	2, 5, 7, 8, 9, 14	2, 7, 8, 9, 14, 17	2, 7, 9
PB-CTS3	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM	51.8	194	7, 8, 9, 14	7, 8, 9, 14, 17	7, 9
PB-CTS3	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM ₁₀	51.8	194	14	14, 17	
PB-CTS3	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM _{2.5}	51.8	194	14	14, 17	
PB-CTS3	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	CO	250	--	14	14, 17	
PB-CTS3	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	VOC	98.9	--	14	14, 17	
PB-CTS4	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	NO _x	376	1,410	2, 3, 7, 8, 9, 10, 14	2, 7, 8, 9, 10, 14, 17	2, 7, 9
PB-CTS4	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	CO	22.0	82.5		17	
PB-CTS4	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	VOC	8.7	32.6		17	
PB-CTS4	GE MS7001EA Combustion Turbine, Gas Firing (5) *	SO ₂	15.2	57.0	2, 5, 14	2, 14, 17	2
PB-CTS4	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM	20.6	77.3	14	14, 17	
PB-CTS4	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM ₁₀	20.6	77.3	14	14, 17	
PB-CTS4	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM _{2.5}	20.6	77.3	14	14, 17	
PB-CTS4	GE MS7001EA Combustion Turbine, Oil Firing (5) *	SO ₂	520	1,950	2, 5, 7, 8, 9, 14	2, 7, 8, 9, 14, 17	2, 7, 9
PB-CTS4	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM	51.8	194	7, 8, 9, 14	7, 8, 9, 14, 17	7, 9
PB-CTS4	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM ₁₀	51.8	194	14	14, 17	
PB-CTS4	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM _{2.5}	51.8	194	14	14, 17	
PB-CTS4	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	CO	250	--	14	14, 17	
PB-CTS4	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	VOC	98.9	--	14	14, 17	

Permit Number: 9659/PSDTX663M1			Issuance Date: 04/06/2015				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
PB-CTS5	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	NO _x	376	1,410	2, 3, 7, 8, 9, 10, 14	2, 7, 8, 9, 10, 14, 17	2, 7, 9
PB-CTS5	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	CO	22.0	82.5		17	
PB-CTS5	GE MS7001EA Combustion Turbine, Gas or Oil Firing (5) *	VOC	8.7	32.6		17	
PB-CTS5	GE MS7001EA Combustion Turbine, Gas Firing (5) *	SO ₂	15.2	57.0	2, 5, 14	2, 14, 17	2
PB-CTS5	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM	20.6	77.3	14	14, 17	
PB-CTS5	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM ₁₀	20.6	77.3	14	14, 17	
PB-CTS5	GE MS7001EA Combustion Turbine, Gas Firing (5) *	PM _{2.5}	20.6	77.3	14	14, 17	
PB-CTS5	GE MS7001EA Combustion Turbine, Oil Firing (5) *	SO ₂	520	1,950	2, 5, 7, 8, 9, 14	2, 7, 8, 9, 14, 17	2, 7, 9
PB-CTS5	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM	51.8	194	7, 8, 9, 14	7, 8, 9, 14, 17	7, 9
PB-CTS5	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM ₁₀	51.8	194	14	14, 17	
PB-CTS5	GE MS7001EA Combustion Turbine, Oil Firing (5) *	PM _{2.5}	51.8	194	14	14, 17	
PB-CTS5	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	CO	250	--	14	14, 17	
PB-CTS5	GE MS7001EA Combustion Turbine, Gas or Oil Firing, Hourly MSS (6) *	VOC	98.9	--	14	14, 17	
PB-EDGS	Emergency Diesel Generator	NO _x	50.7	1.32			
PB-EDGS	Emergency Diesel Generator	CO	11.6	0.30			
PB-EDGS	Emergency Diesel Generator	SO ₂	8.55	0.22			
PB-EDGS	Emergency Diesel Generator	PM	1.48	0.04			
PB-EDGS	Emergency Diesel Generator	PM ₁₀	1.48	0.04			
PB-EDGS	Emergency Diesel Generator	PM _{2.5}	1.48	0.04			
PB-EDGS	Emergency Diesel Generator	VOC	1.50	0.04			
MSS-FUG	Planned MSS Sources (7)	VOC	18.9	0.13	11, 14	14,17	
MSS-FUG	Planned MSS Sources(7)	PM	<0.01	<0.01	11, 14	14,17	
MSS-FUG	Planned MSS Sources(7)	PM ₁₀	<0.01	<0.01	11, 14	14,17	
MSS-FUG	Planned MSS Sources(7)	PM _{2.5}	<0.01	<0.01	11, 14	14,17	

Footnotes:

* Hourly emission rates shown apply to each individual combustion turbine. Annual emission rates apply to all turbines combined.

(1) Emission point identification -either specific equipment designation or emission point number from plot plan

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

Footnotes (continued):

- (3) NO_x - total oxides of nitrogen
- CO - carbon monoxide
- SO₂ - sulfur dioxide
- PM - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
- PM₁₀- particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
- PM_{2.5} - direct particulate matter equal to or less than 2.5 microns in diameter
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1(4)(c)
- (4) Compliance with combustion turbine and emergency diesel generator annual emission rates are based on a calendar year. Annual emission rates for combustion turbines and the emergency diesel generator include planned MSS emissions.
- (5) Other than CO and VOC, hourly maximum emission limits apply both during normal operation and planned MSS.
- (6) Hourly maximum emission limits apply during periods of planned MSS only.
- (7) Includes ILE (inherently low emitting) and non-ILE fugitive emissions from sources and activities listed in the special conditions of this permit. Emission rates are an estimate and are enforceable through compliance with the applicable special conditions and permit application representations. Compliance with planned fugitive maintenance, startup, and shutdown (MSS) annual emission rates is based on a 12-month rolling period.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
Luminant Generation Company LLC
Authorizing the Continued Operation of
Permian Basin Steam
Located at **Monahans, Ward County, Texas**
Latitude 31° 35' 2" *Longitude* -102° 57' 49"

Permits: 9659 and PSDTX663M1

Issuance Date : April 6, 2015

Expiration Date: April 6, 2025

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Special Conditions

Permit Numbers 9659 and PSDTX663M1

Emission Standards, Fuel Specifications, and Operational Limitations

1. This permit covers only the sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and these sources are limited to the emission limits and other conditions specified in that attached table. In addition to emissions from routine operations, this permit authorizes the emissions from the planned maintenance, start-up and shutdown (MSS) activities listed in Attachment A and Attachment B and as referenced in the maximum allowable emission rates table (MAERT) attached to this permit. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that this permit authorizes to be performed. Attachment B identifies non-ILE planned maintenance activities that this permit authorizes to be performed.
2. This facility shall comply with all requirements of the U.S. Environmental Protection Agency (EPA) regulations in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A and GG on Standards of Performance for New Stationary Sources promulgated for Stationary Gas Turbines.
3. The concentration of nitrogen oxides (NO_x) in the stack gases from each turbine shall not exceed the applicable limit as determined under 40 CFR Part 60.8 and 60.332(a)(1), of 96 parts per million by volume at 15 percent oxygen (O₂) and on a dry basis, adjusted to International Standards Organization standard day conditions as specified in 40 CFR Part 60.335(b)(1). This emission limit does not apply during planned MSS activities.
4. The following applies to fuel fired in the gas turbines.
 - A. Fuel is limited to:
 - (1) pipeline-quality, sweet natural gas containing no more than 1.5 grains hydrogen sulfide and 5.0 grains total sulfur per 100 dry standard cubic feet of gas, or
 - (2) refinery grade, first-run No. 2 fuel oil containing no more than 0.5 percent by weight sulfur. No blended or waste oil shall be allowed unless prior approval is obtained from the Executive Director of the Texas Commission on Environmental Quality (TCEQ).
 - (3) Use of any other fuel will require a permit modification.
 - (4) Any violation of the fuel sulfur limits in (1) or (2) above shall be considered a violation of the sulfur dioxide (SO₂) emission limits of Special Condition No. 1.
5. The holder of this permit shall provide a sample or analysis of the fuel utilized in this facility or shall allow a TCEQ representative to obtain a sample for analysis upon request by the Executive Director of the TCEQ. Sampling and analysis shall follow the procedures set out in 40 CFR Parts 60.334 and 60.335.
6. Total electrical generation from the turbines covered by this permit is limited to 705,000 megawatt-hours per calendar year.

Initial Determination of Compliance

7.

- A. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the gas turbines. Sampling shall be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with applicable EPA Code of Federal Regulations procedures, including Reference Method 20 for the concentration of NO_x and O₂. Any deviations from these procedures must be approved by the TCEQ Executive Director prior to sampling. The TCEQ Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.
- B. Air contaminants emitted from the gas turbines to be tested for include (but are not limited to) NO_x when firing the turbines on natural gas and NO_x, SO₂, and particulate matter when firing the turbines on fuel oil.
- C. The ratio of water-to-fuel injected for the control of NO_x emissions shall be determined during this testing.
- D. Sampling shall occur within 60 days after achieving the maximum production rate at which the turbines will be operated, but not later than 180 days after initial start-up of the turbines.
- E. The TCEQ shall be notified 30 days prior to sampling in such a manner that a representative of the TCEQ may be present during sampling and the notice shall include:
 - (1) Date sampling will occur.
 - (2) Name of firm conducting sampling.
 - (3) Type of sampling equipment to be used.
 - (4) Method or procedure to be used in sampling.
- F. Two copies of the final sampling report shall be distributed as follows:
 - One copy to the TCEQ Midland Regional Office.
 - One copy to the EPA Region 6 Air Enforcement Branch.

8. Sampling shall be performed on at least three of the five gas turbines. If any of the sampling results obtained pursuant to Special Condition No. 7 exceed the applicable limit on the attached MAERT for any air contaminant, then all the turbines shall be sampled for the specific air contaminant(s).

9.

- A. Sampling to establish the actual pattern and quantity of air contaminants emitted from the gas turbines when firing fuel oil may be waived by the Executive Director provided that the gas turbines authorized by this permit have not been fired on fuel oil.

- B. Within 30 days of the commencement of firing fuel oil in this facility, the holder of this permit shall submit a schedule for testing to the Executive Director and the Midland Regional Office. Air contaminants to be tested for shall be those specified in Special Condition No. 7. The testing shall occur within 60 days after achieving the maximum production rate at which the turbines will be operating while firing fuel oil, but not later than 180 days after initial operation of the turbines on fuel oil. Two copies of the final sampling report for fuel oil firing shall be distributed according to Special Condition No. 7.F. If the facility fails to meet the emission limits for fuel oil burning as required by the permit, the holder of this permit shall cease burning oil immediately upon notification of such failure by the TCEQ Executive Director. The TCEQ Executive Director may specify retesting on an appropriate schedule.
- C. Equipment specified in Special Condition Nos. 7, 8 and 9 have previously completed required testing to demonstrate Initial Determination of Compliance and do not need to be retested unless required to do so by the Executive Director of the TCEQ.

Continuous Determination of Compliance for Water Injection

- 10. When operation of any turbine with a particular fuel results in a NO_x emission rate that must be controlled using water injection, the holder of this permit shall install and when operating on that particular fuel, operate a continuous monitoring system to monitor and record fuel consumption and the ratio of water-to-fuel being fired in each turbine. This system shall be approved by the Executive Director of the TCEQ. Any operating hour, as defined in 40 CFR 60.331, during which the water-to-fuel ratio falls below the ratio determined in Special Condition No. 7, shall be used to determine violations of the emission limitation of Special Condition No. 3.

Planned Maintenance, Startup, and Shutdown Emissions

- 11. The holder of this permit shall minimize emissions during planned MSS activities authorized by this permit by operating the facilities and associated air pollution control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility.
- 12. Emissions during planned startup and shutdown activities for the gas turbines will be minimized by limiting the duration of operation in planned startup and shutdown mode as follows:
 - A. A planned startup for each gas turbine shall not exceed 30 minutes. A planned startup for each turbine is defined as the period that begins when fuel is introduced into the turbine and ends when the turbine reaches a power output of 40 megawatts (MW).
 - B. A planned shutdown for each gas turbine shall not exceed 30 minutes. A planned shutdown for each turbine is defined as the period that begins when the turbine is being cycled down from 40 MW to no-load and ends when fuel is cut off to the turbine.
- 13. Compliance with the emission limits for planned MSS activities identified in the MAERT attached to this permit shall be demonstrated as follows.

- A. For ILE activities identified in Attachment A of this permit:
 - (1) The total emissions from all ILE planned maintenance activities shall be considered to be no more than the estimated potential to emit for those activities that are represented in the permit application.
 - (2) The permit holder shall annually confirm the continued validity of the estimated potential-to-emit represented in the permit application for all ILE planned maintenance activities.
 - B. For non-ILE activities identified in Attachment B of this permit whose emissions occur through a stack, the permit holder shall determine the emissions in accordance with Special Condition No. 14.
 - C. For non-ILE activities identified in Attachment B of this permit whose emissions do not occur through a stack, the permit holder shall do the following for each calendar month.
 - (1) Determine the total emissions of each pollutant emitted that result from such non-ILE planned MSS activities in accordance with Special Condition No. 14.
 - (2) Once monthly emissions have been determined in accordance with Special Condition No. 14 for the 12 months following the issuance of the MSS permit amendment, begin comparing the rolling 12-month emissions for the pollutant to the applicable annual planned MSS-FUG emissions limit in the MAERT.
14. For each pollutant, the permit holder shall calculate the pollutant's emissions during all occurrences of each planned MSS activity on Attachment B for each calendar month using the frequency of the planned MSS activity identified in work orders or equivalent records and the emissions of the pollutant during the planned MSS activity, either
- A. as represented in the planned MSS permit application; or
 - B. as determined with an appropriate method, including but not limited to any of the following methods, provided that the permit holder maintains appropriate records supporting such determination:
 - (1) use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations;
 - (2) use of emissions data measured (by a continuous emissions monitoring system or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the activity's or facility's relevant operating parameters;
 - (3) use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's or activity's relevant operating parameters, such as electric load, temperature, fuel input, or fuel sulfur content; or
 - (4) use of parametric monitoring system data applicable to the facility.
15. Vacuum trucks used during planned maintenance must use submerged loading into the truck tank when pumping liquids.

16. With the exception of the emission limits in the MAERT attached to this permit, the permit conditions relating to planned MSS activities do not become effective until 60 days after issuance of the permit amendment that added such conditions.

Recordkeeping

17. The following records to demonstrate compliance with the conditions of this permit shall be made and kept for a minimum of five years after collection and shall be made available upon request to representatives of the TCEQ, the EPA, or any local air pollution program having jurisdiction. Records shall be legible and maintained in an orderly manner.
 - A. Water-to-fuel ratio records to demonstrate compliance with the NO_x emission rates in the MAERT and performance standard listed in Special Condition No. 3.
 - B. Sulfur content of the natural gas and fuel oil in order to demonstrate compliance with Special Condition No. 4.
 - C. Total monthly electrical generation from the five turbines in order to demonstrate compliance with Special Condition Nos. 1 and 6.
 - D. Records of MSS activities and their emissions to demonstrate compliance with Special Condition Nos. 12, 13 and 14.

Date: April 6, 2015

Attachment A
 Permit Numbers 9659 and PSDTX663M1
 ILE Planned Maintenance Activities at Permian Basin SES

Planned Maintenance Activity	EPN	Emissions				
		VOC	NO _x	CO	PM	SO ₂
Air Intake filter maintenance ¹	MSS-FUG				X	
Storage tank/vessel maintenance of storage tanks/vessels storing fuel oil or other material with vapor pressure <0.5 psia	MSS-FUG	X				
Maintenance of storage vessels storing gasoline or other material with a vapor pressure >0.5 psia that does not require clearing to allow for entry of personnel	MSS-FUG	X				
Sludge Management ²	MSS-FUG	X				
Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment and process instruments, including sight glasses, meters, gauges, and PEMS	MSS-FUG	X				
Small equipment and fugitive component repair/replacement in VOC service ³	MSS-FUG	X				

ILE Table Notes:

1. Includes, but is not limited to, process-related building air filters and gas turbine air intake filters.
2. Includes, but is not limited to, management by vacuum truck/dewatering of materials in open pits and ponds, sumps, tanks and other closed or open vessels. Materials include water and sludge mixtures containing miscellaneous VOCs such as fuel oil, lube oil, and other waste oils.
3. Includes, but is not limited to:
 - (i) repair/replacement of pumps, compressors, valves, pipes, flanges, transport lines, filters and screens in fuel oil, diesel oil, lube oil, and gasoline service; and
 - (ii) vehicle and mobile equipment maintenance that may involve small VOC emissions, such as oil changes, transmission service, and hydraulic system service.

Date: April 6, 2015

Attachment B
Permit Numbers 9659 and PSDTX663M1
Non-ILE Planned Maintenance Activities at Permian Basin SES

Planned Maintenance Activity	EPN	Emissions				
		VOC	NOX	CO	PM ₁₀	SO ₂
Gas Turbine Maintenance, Startup, and Shutdown	PB-CTS1-5	x	x	x	x	x

Date: April 6, 2015

Emission Sources - Maximum Allowable Emission Rates

Permit Number 9659 and PSDTX663M1

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)		Air Contaminant Name (3)	Emission Rates	
				lbs/hour	TPY (4)
PB-CTS1, PB-CTS2, PB-CTS3, PB-CTS4, and PB-CTS5	GE MS7001EA Combustion Turbine Hourly emission rates shown apply to each individual turbine. Annual emission rates shown apply to all turbines combined	Gas or Oil Firing (5)	NO _x	376	1,410
			CO	22.0	82.5
			VOC	8.7	32.6
		Gas Firing (5)	SO ₂	15.2	57.0
			PM	20.6	77.3
			PM ₁₀	20.6	77.3
			PM _{2.5}	20.6	77.3
		Oil Firing (5)	SO ₂	520	1,950
			PM	51.8	194
			PM ₁₀	51.8	194
			PM _{2.5}	51.8	194
		Gas or Oil Firing Hourly MSS (6)	CO	250	---
			VOC	98.9	---
PB-EDGS	2,113 Horsepower Emergency Diesel Generator		NO _x	50.7	1.32
			CO	11.6	0.30
			SO ₂	8.55	0.22
			PM	1.48	0.04
			PM ₁₀	1.48	0.04
			PM _{2.5}	1.48	0.04
			VOC	1.50	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MSS-FUG	Planned MSS Sources (7)	VOC	18.9	0.13
		PM	<0.01	<0.01
		PM ₁₀	<0.01	<0.01
		PM _{2.5}	<0.01	<0.01

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) NO_x - total oxides of nitrogen
CO - carbon monoxide
SO₂ - sulfur dioxide
PM - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
PM₁₀ - particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Compliance with combustion turbine and emergency diesel generator annual emission rates are based on a calendar year. Annual emission rates for combustion turbines and the emergency diesel generator include planned MSS emissions.
- (5) Other than CO and VOC, hourly maximum emission limits apply both during normal operation and planned MSS.
- (6) Hourly maximum emission limits apply during periods of planned MSS only.
- (7) Includes ILE (inherently low emitting) and non-ILE fugitive emissions from sources and activities listed in the special conditions of this permit. Emission rates are an estimate and are enforceable through compliance with the applicable special conditions and permit application representations. Compliance with planned fugitive maintenance, startup, and shutdown (MSS) annual emission rates is based on a 12-month rolling period.

Date: April 6, 2015